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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,188	03/22/2006	Hideki Misawa	4700.P0325US	9352

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EXAMINER	
PATEL, VIPIN	

ART UNIT	PAPER NUMBER
2873	

MAIL DATE	DELIVERY MODE
05/12/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/573,188	MISAWA ET AL.	
	Examiner	Art Unit	
	VIPIN M. PATEL	2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 March 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/6/2007, 3/22/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because abstract is with more then 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 6 and 8-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Murata et al. (4368952).

Regarding claim 1, Murata et al. discloses (see Fig. 2, 3,4) A magnetic migration and reversal display panel comprising at least a dispersion liquid (2) having a yield value obtained by dispersing, in a dispersion medium comprising a colorant (column 8, line 6-10), micro-magnets (4) having magnetic poles (column 9, line 19-25) that differ in color (black-white) and that differ in color from the dispersion medium as well, and support members (1,3,5,6) that retain the dispersion liquid, wherein the micro-magnets comprise two or more kinds of magnetic materials (column 6, line 30-42) with different coercive forces (column 6, 47-50).

Regarding claim 6.Murata et al. discloses the coercive force of the micro-magnets is (column 19, line 30-39, 3.98kA/m to 19.9 kA/M), 4.0 kA/m or more and 600 kA/m or less.

Regarding claim 8, Murata et al discloses the yield value of the dispersion liquid is 0.15 to 7.5 N/m^2 (column 2, line 11-12).

Regarding claim 9, Murata et al. discloses a colorant contained in the dispersion liquid has a desired color tone (column 8, line 6-10).

Regarding claim 10, Murata et al. discloses a fluorescent coloring agent is contained in the dispersion medium and/or micro-magnets (column 8, line 1-5).

Regarding claim 11, Murata et al. discloses an antistatic agent is contained in the dispersion liquid (column 7, line 56-60, surface active agent).

Regarding claim12, Murata et al. discloses (see Fig. 2-4) A magnetic migration and reversal display panel comprising at least a dispersion liquid (2) having a yield value obtained by dispersing, in a dispersion medium comprising a colorant (column 8, line 8-9), micro-magnets (4) with magnetic poles that differ in color (column 9, 18-25) and that differ in color from the dispersion medium as well, and support members (Fig. 2, 4 element 1, 3, 5, 6) that retain the dispersion liquid, wherein writing selectively (column 8, line 16-39)representing one of two display colors can be obtained by selection of the magnetic poles of an external magnetic field (column 1, line 20-26), wherein a specified pole of the external magnetic field is selected at a region where writing is to be formed and the external magnetic field is applied (column 8, line 27-35) to act on the region from the front surface side for causing migration or migration and reversal of the micro-magnets in the dispersion liquid, and thereby displaying the color tone of a specified surface, which is a surface of the magnetic pole of the micro-magnets opposite to the selected magnetic pole of the external magnetic field (inherent to application of magnetic pen).

Regarding claim 13, Murata et al. discloses A method comprising: forming writing by causing an external magnet (Column 10, line 23-24) for writing to act on the micro-magnets for causing migration and/or reversal of the micro-magnets, and thereby causing the color tone (black) of the specified surface of the micro-magnets to be displayed (column 10, line 23-31); and then changing the color tone of the writing (column 10, line 36-42) by reversing the micro-magnets forming the writing by causing a magnetic field of the magnetic pole opposite to the magnetic pole ((column 10, line 40-42) of the external magnet (column 10, line 39-42) for writing to act from the same

surface side within a range that other micro-magnets that do not form the writing are not caused to migrate.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al. (4368952) in view of Matsuura et al. (6686940 B2).

Regarding claim 2 Murata et al discloses the magnetic migration and reversal display panel as in claim 1 except the micro-magnets comprise at least two or more kinds of magnetic material including a first magnetic material comprising a high coercive force material and a second magnetic material comprising a low magnetic coercive force material.

Matsuura et al. discloses the micro-magnets comprise at least two or more kinds of magnetic material (column 19, line 4-6) including a first magnetic material comprising a high coercive force material (column 19, line 13-15) and a second magnetic material comprising a low magnetic coercive force material (column 19, line 5-10).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate two kinds of magnetic particle as disclosed by Matsuura et al. in to the display of Murata et al. for the purpose of retaining stable image in a predetermined density and in good contrast (column 19, line 32-39).

Regarding claim 3, Murata et al. discloses the one kinds of magnetic material with coercive force of the 221 kA/m.

Murata et al. does not disclose and the coercive force of the second magnetic material is less than 65.0 kA/m.

Matsuura et al. discloses two kind of magnetic material one with coercive force of 4-20 kA/m and second particle with 0 kA/m.

It would have been obvious to one of the ordinary skill in the art at the time of the invention was made o use two types of magnetic material one with coercive force of 221 kA/m as disclosed by Murata et al. and other with 0kA/m as disclosed by Matsuura et al. for the purpose of achieving good contrast.

Regarding claim 4, Murata et al. discloses the one kinds of magnetic material with coercive force of the 221 kA/m.

Murata et al. does not disclose the second particle.

Matsuura et al. discloses two kind of magnetic material one with twice or more times coercive force (4-20 kA/m) of coercive force of the second magnetic material (0 kA/m).

It would be obvious to use two types of magnetic material one with coercive force of 221 kA/m as disclosed by Murata et al. and other with 0kA/m as disclosed by Matsuura et al. for the purpose of achieving good contrast.

7. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al. (4368952) in view of Hakata (6017667).

Regarding claim 5, Murata et al. discloses the magnetic material is at least one magnetic materials selected from the group consisting of magnetite, maghematite, cobalt-deposited magnetite, and cobalt-deposited maghematite (column 6, line 23-29).

Murata et al. does not disclose the first magnetic material is hexagonal magnetoplumbite-type ferrite.

Hakata discloses magnetic material comprising of magnetoplumbite-type ferrite (column 6, line 49-52).

It would be obvious to use magnetic material consists of magnetoplumbite-type ferrite as disclosed by Hakata in the display system of Murata et al. for the purpose of providing particle with higher coercive forces (column 6, line 48-55).

Regarding claim 7 Murata et al. discloses the magnetic migration and reversal display panel as in claim 1 except, the residual magnetization per unit mass of the micro-magnets is 1 to 35 Am.^2/kg, and the saturation magnetization per unit mass of the micro-magnets is 1 to 100 Am^2/kg.

Hakata discloses the residual magnetization of more then 25 emu/cm^3 and the saturation magnetization per unit mass of the micro-magnets is higher then 40 emu/g.

It would have been obvious to use residual magnetization of 25 emu/cm^3 and saturation magnetization per unit mass of the micro-magnets is higher then 40 emu/g as disclosed by Hakata in to the system of Murata et al. for the purpose of providing particle with higher coercive forces (column 6, line 48-55).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIPIN M. PATEL whose telephone number is (571)270-1742. The examiner can normally be reached on Monday through Friday, 7:30AM to 5:00PM E.S.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VP

/Vipin M Patel/
Examiner, Art Unit 2873
5/8/2010

/Ricky L. Mack/
Supervisory Patent Examiner, Art Unit 2873